LOL-HECO-IR-65

Ref: "Lessons Learned -- The system must be designed to withstand the more probable outages so that the power system remains stable." (T-3, page 9, lines 22-23)

Question(s):

a. What outages are more probable and why?

b. Do historic outage reports support this answer?

HECO Response:

a. As noted in Mr. Pollock's response to LOL-HECO-IR-64, single contingency outages are more probable because they require the loss of only one component of the system. In the portion of his referenced testimony, the unplanned loss of one transmission line led to the tripping of other transmission lines, and eventually a blackout of a large portion of the system. In this instance, the system was not capable of withstanding the loss of that particular transmission line.

b. Yes. Historically, there are many more occurrences of single contingency outages than for multiple contingency outages.